

Extron® Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

300 MHz (-3dB) video bandwidth

Wall-mountable

ADSP™ – Advanced Digital Sync Processing

15 kHz to 130 kHz compatibility

Active audio interfacing

Architectural Adapter Plates (RGB 508, RGB 568)

Level/peaking control

Horizontal centering

RGsB, RGBS, or RGBHV output

75 ohm termination switch (RGB 500, RGB 508)

ID bit termination switch (RGB 560, RGB 568)

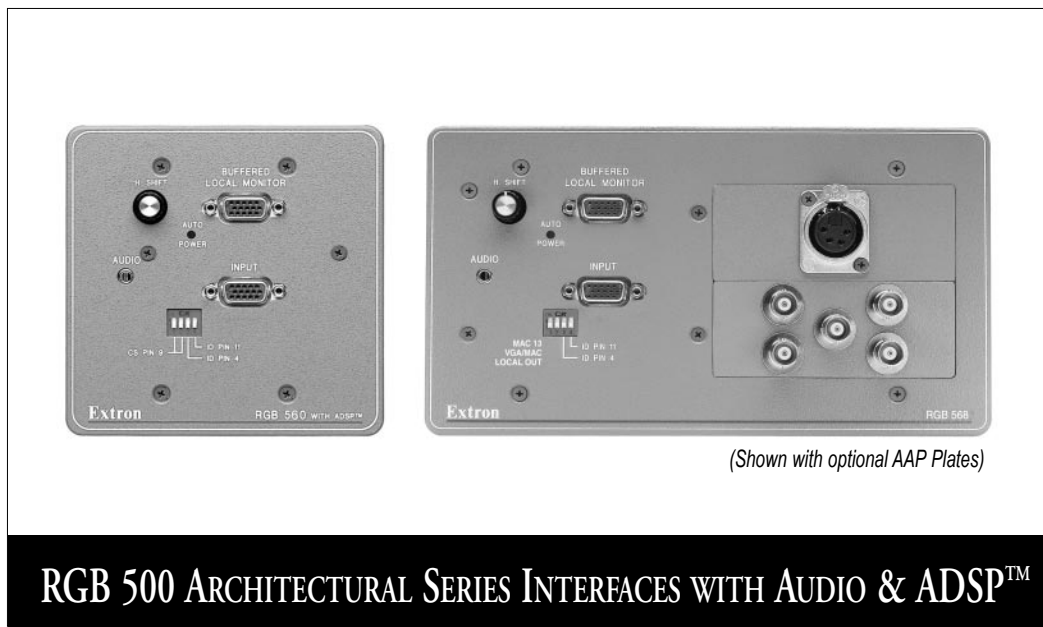
Grey, black, or white faceplates

12-24 VAC or VDC

Female 15-pin HD input (RGB 560, RGB 568)

Buffered local monitor output (RGB 560, RGB 568)

Dual interfacing models (RGB 500, RGB 560)



DESCRIPTION

Extron's RGB 500 Architectural Series interfaces are 300 MHz (-3dB) video bandwidth, universal, analog computer-video interfaces with audio. These interfaces are available in a variety of shallow depth, wall-mountable designs for interfacing computer video signals to the BNC inputs of projectors and other multimedia display devices. Each model features innovations such as Extron's exclusive Advanced Digital Sync Processing (ADSP™), audio interfacing, peaking, and more.

Extron's RGB 500 Series consists of four models: **RGB 500**, **RGB 508**, **RGB 560**, and **RGB 568**. The RGB 500 and RGB 560 models are both available in a dual configuration, with two fully functional interfaces on a four-gang size mounting plate. This dual configuration provides independent and centralized interfacing solutions for multiple computers while utilizing the switching capabilities of the display. Extron's RGB 508 and 568 offer access openings that may be used with optional Architectural Adapter Plates (AAP). Over 100 different plates are available with many of the connector types used in A/V installations. These plates provide flexible signal pass-through solutions for the interface, saving space and eliminating loose cables.

Extron's RGB 500 Series universal interfaces each provide a horizontal scanning range from 15-130 kHz and 300 MHz (-3dB) video bandwidth, ensuring compatibility with VGA, SVGA, XGA, SXGA, XGA-2, UXGA, Mac, Sun, SGI signals and more. Sync output is dip switch selectable for composite, separate horizontal and vertical sync, and sync on green. Audio interfacing is also included, allowing the input of unbalanced, computer generated signals to be buffered and converted to balanced line-level signals.

All RGB 500 Series interfaces feature Extron's exclusive ADSP Advanced Digital Sync Processing. ADSP provides all-digital processing of sync signals, avoiding the tearing and other image distortions encountered when using poor sync processing methods with digital display devices (DLP, LCD, plasma, etc.). With Extron's ADSP, the RGB 500 Series universal interfaces are compatible with digital displays and maintain the use of signal centering controls and sync separation and stripping, allowing output of RGsB, RGBS, or RGBHV from any RGB input signal.

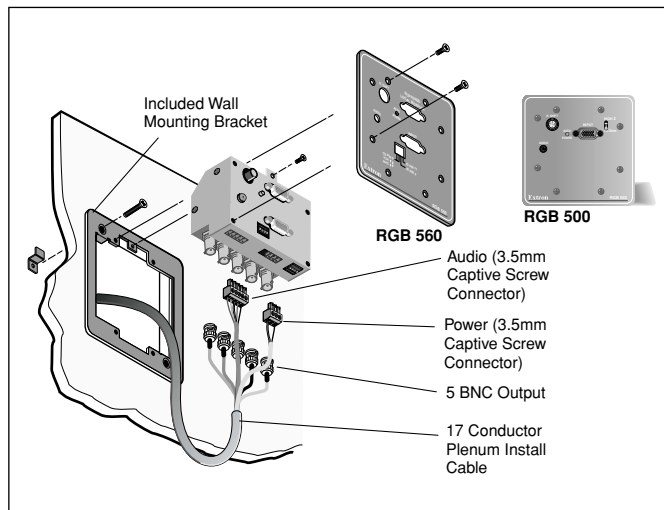
The RGB 500 and RGB 508 use Extron's universal 9-pin input connector and provide switch controlled 75-ohm video termination. Using Extron's extensive line of monitor breakout cables (MBCs) allows both models to be compatible with virtually every computer. The 75 ohm termination switch provides termination for applications where there is no local display. RGB 560 and RGB 568 models use female 15-pin HD connectors for their inputs and offer selectable ID bit termination on pins 4 and 11 for VGA, SVGA, XGA, SXGA, and UXGA. These models also add the convenience of a buffered local monitor output.

Extron's Architectural Series interfaces offer advantages such as low profile faceplates and shallow mounting depths for easy, flush installation into thin walls, podiums, desks, or any other flat surface. This design, combined with wall mounting plates that ship with the product, allow for easy installation into existing walls. To further help Extron's RGB 500 Series interfaces blend into their surroundings, faceplates are available in grey, black, and white.

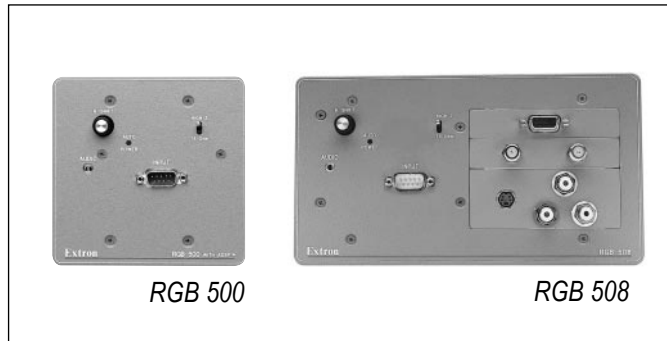
FEATURES

- **High performance compatibility** – 15-130 kHz horizontal frequency range and 300 MHz (-3dB) of RGB video bandwidth.
- **Advanced Digital Sync Processing (ADSP)** – All-digital sync process ensures flawless operation with any LCD, DLP, plasma, or other digital display device.
- **Horizontal picture centering** – Allows the input signal to be shifted horizontally for a properly centered image on the display device.
- **12-24 VAC or VDC** – Accepts power from a wide range of sources.
- **Level/Peaking** – Three position level/peaking jumpers allow for adjustment of image brightness and sharpness. This feature provides compensation for signal loss due to cable length, capacitance, and system bandwidth losses.
- **Adjustable vertical sync pulse width** – Choice of narrow or wide (default) sync pulse widths for greater compatibility with both CRT and digital displays.
- **Selectable sync polarity** – Sync polarity may be output in the same format as it is input or converted to negative polarity for separate horizontal and vertical sync.
- **Active audio buffering** – Unbalanced computer-generated audio is input via a 3.5 mm mini jack and output as balanced line-level audio on a 3.5 mm captive screw connector.
- **Switch selectable sync output** – Five BNC connectors allow for composite and separate horizontal and vertical sync to be selected at the flip of a switch. Sync on green is also available.

APPLICATION DIAGRAM



RGB 500 & 508



Extron's **RGB 500 and RGB 508** universal analog computer-video interfaces with audio offer the choice between the smallest footprint of any wall mountable interface available – 4.5 inches square and under two inches deep (RGB 500) – and the flexibility of four, single space openings for Extron's Architectural Adapter Plates (RGB 508). Both include Extron's universal 9-pin input connector and provide 75 ohm video termination.

FEATURES

- **Universal 9-pin D input** – Compatible with Extron's exclusive line of monitor breakout cables (MBCs), allowing for compatibility with virtually every computer without the need for an input adapter.
- **75 ohm termination** – The RGB 500 and RGB 508 provide 75 ohm video termination for use with laptops and non-terminated monitor breakout cables.
- **Architectural Adapter Plates** – The RGB 508 features four, single space adapter plate openings for signal pass-through connection options.

PART NUMBERS

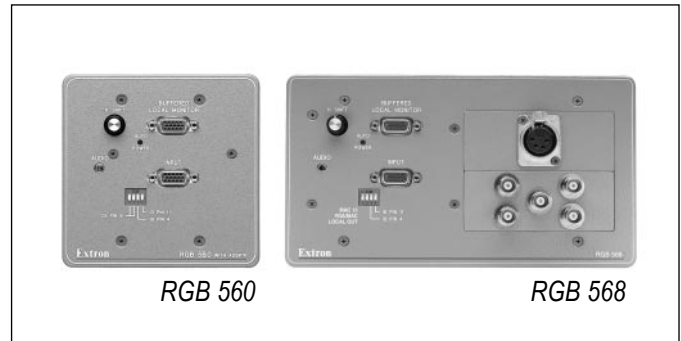
RGB 500

Grey	60-286-01
Black	60-286-02
White	60-286-03
Power Supply (sold separately)	70-055-01

RGB 508

Grey	60-287-01
Black	60-287-02
White	60-287-03
Power Supply (sold separately)	70-055-01

RGB 560 & 568



In addition to universal analog computer and display compatibility, Extron's **RGB 560 and RGB 568** wall-mountable computer-video interfaces with audio feature female 15-pin HD inputs and buffered local monitor outputs. These add to the ease of using the VGA/XGA-type computers common to business applications, while still being compatible with other computer systems. The RGB 568 includes all the capabilities of the RGB 560 in addition to four, single space openings for Extron's Architectural Adapter Plates.

FEATURES

- **Female 15-pin HD input connector** – Both models use this common VGA-type connector; adapter kits are available for computers using Mac and 13W3 connectors.
- **Buffered 15-pin HD local monitor output** – Allows for connection and display of the computer's local monitor from the RGB 560 and 568 without any reduction of signal quality or integrity.
- **ID bit termination** – The RGB 560 and RGB 568 provide dip switch activated termination for pins 4 and 11 of its 15-pin HD input, ensures machines that require local monitors to operate will do so.
- **Architectural Adapter Plates** – The RGB 568 features four-single space adapter plate openings for signal pass-through connection options.

PART NUMBERS

RGB 560

Grey	60-381-01
Black	60-381-02
White	60-381-03
Power Supply (sold separately)	70-055-01

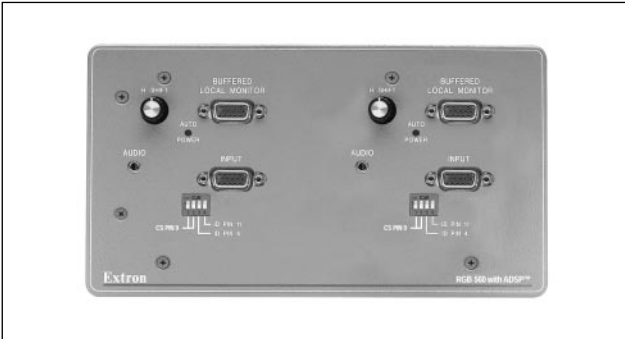
RGB 568

Grey	60-383-01
Black	60-383-02
White	60-383-03
Power Supply (sold separately)	70-055-01

RGB 500 & 560 DUAL



RGB 500 Dual



RGB 560 Dual

Extron’s **RGB 500 and RGB 560** universal analog computer-video interfaces with audio are both available in a dual configuration, with two fully functional interfaces on a four-gang mounting plate. This provides independent and centralized interfacing solutions for multiple computers while utilizing the switching capabilities of the display.

FEATURES

- **RGB 500 and 560 Dual Models** – Provide two independent interfaces with a single wall-mounting face plate for a tandem installation within the same footprint.

PART NUMBERS

RGB 500

Grey Dual	60-286-11
Black Dual	60-286-12
White Dual	60-286-13
Power Supply (sold separately)	70-055-01

RGB 560

Grey Dual	60-382-11
Black Dual	60-382-12
White Dual	60-382-13
Power Supply (sold separately)	70-055-01

ACCESSORIES

Monitor breakout cables: RGB 500 and RGB 508

MBC VGA/XGA HR.....	26-162-01
MBC Mac Quadra	26-018-01
MBC SUN Sparc HR.....	26-424-01
MBC SGI/13W3 HR.....	26-425-01

Laptop breakout cables: RGB 500 & RGB 508

Laptop breakout cables are available in 3', 6', and 12' lengths with or without audio. Contact Extron for the specific cable for your application.

LBC 90 VGA HR 3'A	26-502-01
LBC 90 VGA HR 6'A	26-502-02
LBC 90 VGA HR 12'A	26-502-03
LBC VGA HR 6'	26-224-01
LBC VGA HR 6' A	26-441-02
LBC Mac HR 6'	26-363-01
LBC Mac HR 6' A	26-442-02
LBC SUN HR 6' A (61 kHz)	26-443-02
LBC SUN HR 6' A (71 kHz)	26-444-02
LBC SUN HR 6' A (61 kHz)	26-445-02

Signal input cable kits for RGB 560 and RGB 568:

VGA M6' MHR.....	26-238-01
VGAM 3' MHRA	26-490-01
VGAM 6' MHRA	26-490-02
VGAM 12' MHRA	26-490-03
VGAM 90 HRA 6'	26-510-02
Mac 15-pin HD F Adapter kit with Audio.....	70-156-01
13W3 15-pin HD F Adapter kit with Audio	70-157-01

Architectural Adapter Plates:

A wide variety of cable pass-through Architectural Adapter Plates are available; contact Extron for a complete list of these plates.

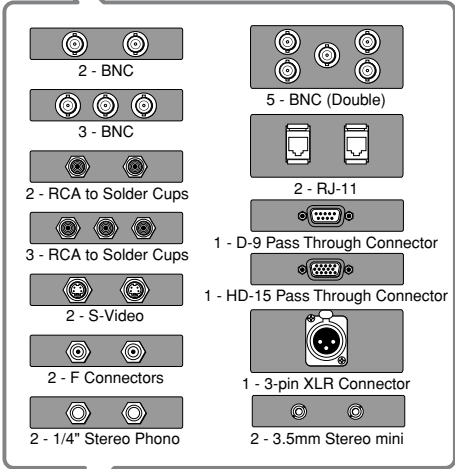
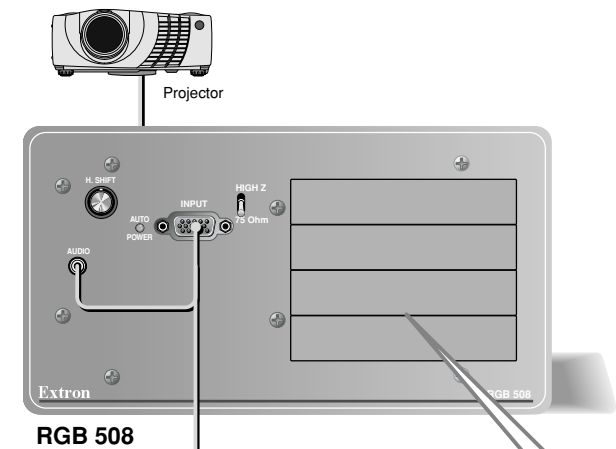
2 BNC pass-through.....	70-091-01
3 BNC pass-through.....	70-091-02
5 BNC pass-through.....	70-091-03
2 RCA pass-through	70-093-01
3 RCA pass-through	70-093-02
2 S-video female to female	70-095-01
2 RJ-45 pass-through	70-100-01
1 R-45 and 1 RJ-11 pass-through.....	70-100-02
1 D-9 (female to female)	70-102-01
1 3-pin XLR connector	70-103-01
1 S-video and 3 RCA pass-through.....	70-107-04
And many more.	

Extron retrofit power supplies

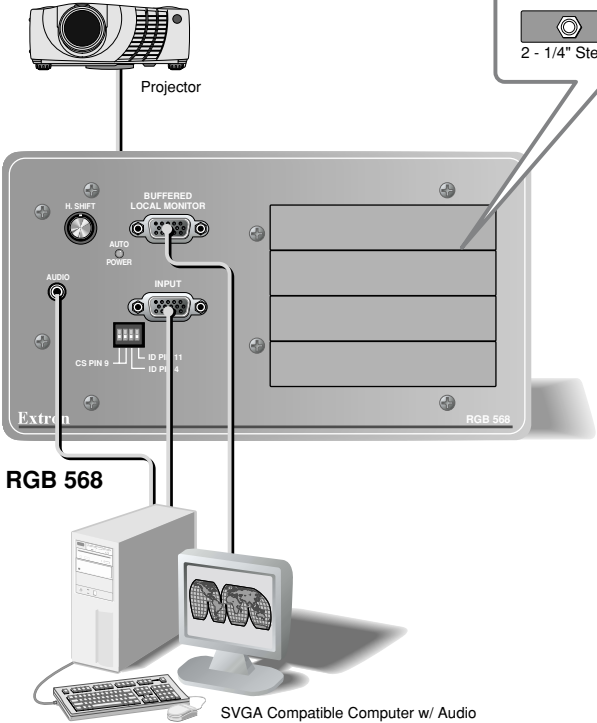
100-240 VAC, 50/60 Hz to 12 VDC/1A-External auto-switchable*	70-055-01
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*Includes US style power cord

APPLICATION DIAGRAM



Sample Modular Connector Plates



SPECIFICATIONS

Video

Gain	Unity (0.70V p-p), (0.725V p-p) 50% peaking, (0.75V p-p) 100% peaking
Bandwidth	300 MHz (-3dB)

Video input

Number/signal type	1 analog RGBHV, RGBS, RGsB, RsGsBs
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Connectors

RGB 500, RGB 500 Dual, RGB 508, ...	1 9-pin D male, MBC/LBC cable or buffer
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RGB 560, RGB 560 Dual, RGB 568, ...	1 15-pin HD female
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Minimum/maximum levels ..	Analog—0.3V to 1.5V p-p with no offset
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Impedance	75 ohms or High Z, switchable (set to 75 ohms if no local monitor is connected)
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Horizontal frequency	Autoscan 15 kHz to 130 kHz
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Vertical frequency	Autoscan 30 Hz to 120 Hz
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Return loss	-30dB @ 5 MHz
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Maximum DC offset	4.0V
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Video output

Number/signal type	1 analog RGBHV, RGBS, RGsB
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Connectors

All models	5 BNC female
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RGB 560, RGB 560 Dual, RGB 568, ...	1 15-pin HD female for buffered local monitor output
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Minimum/maximum levels ..	0.70V to 0.75V p-p with no offset and 0.7V p-p input
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Impedance	75 ohms
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Return loss	-30dB @ 5 MHz
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Sync

Input type	RGBHV TTL ($\pm$), RGBS TTL (-), RGsB 0.3V (-), RsGsBs 1.3V (-)
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Output type	RGBHV ($\pm$), RGBS(-), RGsB (-)
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Input level	2V to 5.5V p-p with $\pm$ 0.3VDC offset (max.)
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Output level	4V to 5V p-p
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Input impedance	10 kohms
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Output impedance	75 ohms
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Max. input voltage	5.7V p-p
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Max. propagation delay	48 nS
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Max. rise/fall time	3.5 nS
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Polarity

All models.....	RGBHV: Polarity follows input when RGBHV is input and the bottom panel sync polarity jumper is set to follow (pin 1 jumpered to pin 2). Sync polarity is negative if the sync polarity jumper is set to negative (pin 2 jumpered to pin 3). RGBS, RGsB: Negative
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Audio

Gain	Unbalanced 0dB, balanced +6dB
Frequency response	20 Hz to 20 kHz, $\pm$ 0.05dB
THD + Noise	0.03% @1 kHz, 0.3% @ 20 kHz at rated maximum output drive

S/N	>90dB at rated maximum output (14dBm), balanced
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Stereo channel separation	>95dB @ 1 kHz to 20 kHz
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Audio input

Number/signal type	1 PC level stereo, unbalanced
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Connectors	1 3.5 mm stereo jack, 2 channel; tip (L), ring (R), sleeve (ground)
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Impedance	10 kohms, DC coupled
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Maximum level	+8.5dBu, (unbalanced) at stated %THD+N
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Audio output

Number/signal type	1 stereo (2 channel), balanced/ unbalanced
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Connectors	1 3.5 mm stereo captive screw connector, 5 pole, for left and right output
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Impedance	50 ohms unbalanced, 100 ohms balanced
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Gain error	$\pm$ 0.1dB channel to channel
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Maximum level (600 ohm) ..	> +14dBm, balanced at stated %THD+N
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General

Power	12 to 24VAC or VDC, 0.35 A, 5 watts, external (Order the power supply separately, part #70-055-01.)
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Rack mount.....	No
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Furniture mount	Yes, or wall mount, with included hardware
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Enclosure type	Metal
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Enclosure dimensions —	RGB 500, RGB 560
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Faceplate	4.5" H x 4.6" W (11.4 cm H x 11.7 cm W)
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Interface enclosure	2.5" H x 3.7" W x 1.75" D (6.4 cm H x 9.4 cm W x 4.5 cm D) (Depth excludes connectors and knobs.)
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Enclosure dimensions —	RGB 500/560 Dual, RGB 508/568
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Faceplate	4.5" H x 8.2" W (11.4 cm H x 20.8 cm W)
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Interface enclosure.....	2.5" H x 3.7" W x 1.75" D (6.4 cm H x 9.4 cm W x 4.5 cm D) (Depth excludes connectors and knobs.)
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Shipping weight	RGB 500, RGB 560 2 lbs (0.9 kg) All other models 3 lbs (1.4 kg)
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Approvals.....	UL, CE, FCC Class A
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Warranty	2 years parts and labor
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